WHAT IS CLAIMED IS:

1. A circuit module insertion/extraction mechanism comprising:

a latching mechanism adjacent a rear edge of the module; and

an actuator adjacent a front edge of the module,

wherein operation of the actuator in one direction moves a component of the latching mechanism in a first translational and rotational movement resulting in insertion of the module, and operation of the actuator in the other direction moves the component of the latching mechanism in a second translational and rotational movement resulting in extraction of the module.

2. A system for inserting, along a first axis, a plug-in module into a rack component so that at least a first connector on the plug-in module is coupled to at least a second connector on the rack component, the system comprising:

a first arm that is positioned proximate a first edge of the plug-in module and that includes a first guiding surface;

an actuation device coupled to the plug-in module and capable of being actuated proximate a second edge of the plug-in module; and

a second guiding surface on the plug-in module capable of interfacing with the first guiding surface;

wherein the actuation device causes the first arm to be translated inward with respect to the plug-in module when actuated in a first manner and causes the first arm to be translated outward when actuated in a second manner, and

wherein, as the first arm is moved inward, the first and second guiding surfaces interact so as to provide additional movement of the first arm and thereby engage a retaining component on the rack component.

3. The system of claim 1,

wherein the actuation device includes:

a first rotating component coupled to the plug-in module by a first pin, wherein the first rotating component is pivotable about the first pin; and

a second pin positioned on the first rotating component a first distance from the first pin so that, as the first rotating component rotates about the first pin, the second pin moves in an arcuate manner that includes a first motion component that is substantially parallel to the first axis; and

wherein the first arm includes a first orifice capable of receiving the second pin so that, as the rotating component is rotated in a first direction, the second pin forces the first arm inward toward the plug-in module.

4. The system of claim 3, wherein the first rotating component is a drag link component that includes a lever portion extending radially-outward away from the first pin, and

wherein the actuation device further includes a push-pull rod extending from proximate the second edge to an outer end of the lever portion, to which the push-pull rod is hingedly coupled.

5. The system of claim 4, wherein the push-pull rod extends substantially parallel to the first axis and wherein, as the push-pull rod is pushed inward toward the first edge, the second pin on the drag link component is rotated and consequently the first arm is forced inward toward the plug-in module and additionally is rotated to hook onto the retaining component.

6. The system of claim 5, wherein the lever portion includes a slot and the push-pull rod includes an additional pin that is positioned within the slot.

7. The system of claim 5, further comprising:

a second arm that is positioned proximate the first edge of the plug-in

module and that includes a third guiding surface;

a fourth guiding surface on the plug-in module capable of interfacing with the third guiding surface; and

a second drag link component rotatably coupled to the plug-in module by a third pin and coupled additionally to the second arm by a fourth pin,

wherein each of the first and second drag link components includes a respective eccentric portion, and

wherein the respective eccentric portions of the first and second drag link components are linked to one another by a connector so that, when the first drag link component is rotated, the second drag link component also is rotated, which in turn causes movement of the second arm.

8. The system of claim 5, wherein the retaining component is an alignment pin protruding from the backplane and having a notch to receive a protrusion of the first arm.

9. The system of claim 5, wherein the system is further for extracting the plug-in module from the rack component,

wherein, when the first arm is forced outward away from the plug-in module, pressure is applied by the first arm to the rack component, so that the rack component is forced away from the plug-in component.

10. The system of claim 9, wherein the lever portion creates a mechanical advantage in moving the first arm, and wherein the first guiding surface has a first portion that is substantially flat and a second portion that is substantially concave.

11. The system of claim 2,

wherein the actuation device includes a second arm coupled to the plug-in module by a first pin, wherein the second arm is pivotable about the first pin, wherein the second arm extends a majority of a first distance from the first edge of the plug-in module to the second edge of the plug-in module;

wherein the actuation device further includes a second pin positioned a second distance from the first pin, wherein the second pin is mechanically coupled to the second arm so that, as the second arm rotates about the first pin, the second pin moves in an arcuate manner that includes a first motion component that is substantially parallel to the first axis; and

wherein the first arm includes a first orifice capable of receiving the second pin, so that the first arm rotates about the second pin as the second arm is rotated.

12. The system of claim 11, further comprising a drag link arm having first and second ends, wherein the first pin extends through a first end of the drag link arm, wherein the drag link arm is rotationally coupled to the second arm so that, as the second arm rotates about the first pin, the drag link arm also rotates about the first pin, and

wherein the second pin is supported at the second end of the drag link arm.

13. The system of claim 11, wherein the first orifice is an oblong orifice having a longer axis that is substantially perpendicular to the first axis.

14. The system of claim 11, wherein the retaining component is a third pin supported by at least one additional arm with respect to the remainder of the rack component, and wherein the third pin is substantially perpendicular to the first axis.

15. The system of claim 11, wherein the first arm includes a protrusion that engages the third pin when the first arm is forced to move translationally inward and to rotate upward.

16. The system of claim 11, wherein the first guiding surface has a first portion that is substantially flat and a second portion that is substantially concave,

wherein the second portion interfaces with the second guiding surface before the first arm has been forced inward, and

wherein the first portion interfaces with the second guiding surface as the first arm is forced inward, thereby causing the first arm to rotate towards the retaining component and engage the retaining component.

17. The system of claim 11, wherein the system is further for extracting the plug-in module from the rack component,

wherein, when the first arm is forced outward away from the plug-in module, pressure is applied by the first arm to the rack component, so that the rack component is forced away from the plug-in component.

18. The system of claim 11, wherein the second arm acts as a lever arm and creates a mechanical advantage in moving the first arm.